

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of: **Carter et al.**

Serial No.: **10/697,895**

Filed: **October 30, 2003**

For: **Methods, Apparatus and Computer  
Programs for Visualization and Management  
of Data Organisation Within a Data Processing  
System**

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Group Art Unit: **2163**

Examiner: **Ho, Binh Van**

Confirmation No.: **9228**

**35525**

PATENT TRADEMARK OFFICE  
CUSTOMER NUMBER

**Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450**

**APPEAL BRIEF (37 C.F.R. 41.37)**

This brief is in furtherance of the Notice of Reinstatement of Appeal, filed in this case on August 27, 2008.

No fees are believed to be necessary. If, however, any fees are necessary, I authorize the Commissioner to charge these fees to IBM Deposit Account No. 09-0447.

No extension of time is believed to be necessary. If, however, an extension of time is required, the extension is requested, and I authorize the Commissioner to charge any fees for this extension to IBM Corporation Deposit Account No. 09-0447.

### **REAL PARTY IN INTEREST**

The real party in interest in this appeal is the following party: International Business Machines Corporation of Armonk, New York.

### **RELATED APPEALS AND INTERFERENCES**

This appeal has no related proceedings or interferences.

## **STATUS OF CLAIMS**

### **A. TOTAL NUMBER OF CLAIMS IN APPLICATION**

The claims in the application are: 1-26

### **B. STATUS OF ALL THE CLAIMS IN APPLICATION**

Claims canceled: None

Claims withdrawn from consideration but not canceled: None

Claims pending: 1-26

Claims allowed: None

Claims rejected: 1-26

Claims objected to: None

### **C. CLAIMS ON APPEAL**

The claims on appeal are: 1-26

### **STATUS OF AMENDMENTS**

An Amendment to the Final Office Action of June 2, 2008, was not filed. Accordingly, the claims on appeal herein are as amended in the Response to Office Action filed on January 22, 2008.

## **SUMMARY OF CLAIMED SUBJECT MATTER**

### **A. CLAIM 1 - INDEPENDENT**

The subject matter of claim 1 is directed to a method for managing data organisation for computer programs. A reference taxonomy that comprises information defining a user preference for data organization is generated and stored (**210, 220, 230 Figure 7**; Specification, page 15, lines 7-19). Storage associated with a computer program is accessed to obtain an application taxonomy that comprises information defining an organisation of stored data items of the program (**240, 250, Figure 7**; Specification, page 17, lines 25-29). The reference taxonomy is compared with the application taxonomy to identify matching and non-matching features of the compared taxonomies (**290, Figure 7**; Specification, page 18, line 19-page 19, line 16). In response to a selection of a preferred taxonomy based on a result of the comparison, the preferred taxonomy is stored as a replacement of at least one of the reference taxonomy and the application taxonomy (**310, 320, Figure 7**; Specification, page 20, line 20-page 21, line 7).

### **B. CLAIM 16 - INDEPENDENT**

The subject matter of claim 16 is directed to a taxonomy manager for managing data organisation for computer programs. The taxonomy manager (**60, Figures 1, 2**; Specification, page 12, lines 21-26) includes means for generating and storing a reference taxonomy, the reference taxonomy comprising information defining a user preference for data organisation (**60, 100, 110, Figure 2**; Specification, page 12, line 21-page 13, line 9; also see page 17, line 13-page 19, line 18); and at least one adapter program for accessing storage associated with a respective computer program to obtain an application taxonomy, the application taxonomy comprising information defining an organisation of stored data items of the program (**120, Figure 2**; Specification, page 13, line 11-page 15, line 5). The taxonomy manager further includes means for comparing the reference taxonomy with the application taxonomy to identify matching and non-matching features of the compared taxonomies (**110, Figure 2**; Specification, page 19, lines 15-18); and means, responsive to a selection of a preferred taxonomy based on a result of the comparison, for storing the preferred taxonomy as a replacement of at least one of the reference

taxonomy and the application taxonomy (taxonomy engine) (**110, Figure 2**; Specification, page 24, lines 28-33).

#### **C. CLAIM 24 - INDEPENDENT**

The subject matter of claim 24 is directed to a computer program for managing data organization. The computer program includes program code for generating and storing a reference taxonomy, the reference taxonomy comprising information defining a user preference for data organisation (**210, 220, 230 Figure 7**; Specification, page 15, lines 7-19). The computer program also includes program code for accessing storage associated with a first computer program to obtain an application taxonomy, the application taxonomy comprising information defining an organisation of stored data items of the first program (**240, 250, Figure 7**; Specification, page 17, lines 25-29). The computer program also includes program code for comparing the reference taxonomy with the application taxonomy to identify matching and non-matching features of the compared taxonomies (**290, Figure 7**; Specification, page 18, line 19-page 19, line 16); and program code, responsive to a selection of a preferred taxonomy based on a result of the comparison, for storing the preferred taxonomy as a replacement of at least one of the reference taxonomy and the application taxonomy (**310, 320, Figure 7**; Specification, page 20, line 20-page 21, line 7).

#### **D. CLAIM 26 - INDEPENDENT**

The subject matter of claim 26 is directed to a data processing apparatus. The data processing apparatus includes a data processor, data storage, one or more computer programs for controlling the operation of the data processor to perform operations on data items stored in the data storage (**10, Figures 1, 2**; Specification, page 10, lines 7-11), and a taxonomy manager for managing organisation of stored data in association with the one or more computer programs (**60, Figures 1, 2**; Specification, page 12, lines 21-26). The taxonomy manager includes means for generating and storing a reference taxonomy, the reference taxonomy comprising information defining a user preference for data organization (**60, 100, 110, Figure 2**; Specification, page 12, lines 21-page 13, line 9; also see page 17, line 13-page 19, line 18). The taxonomy manager also includes an adapter for accessing storage associated with a computer program to obtain an application taxonomy, the application taxonomy comprising information defining an organisation

of stored data items of the program (**120, Figure 2**; Specification, page 13, line 11-page 15, line 5). The taxonomy manager also includes means for comparing the reference taxonomy with the application taxonomy to identity matching and non-matching features of the compared taxonomies (**110, Figure 2**; Specification, page 19, lines 15-18); and means, responsive to a selection of a preferred taxonomy based on a result of the comparison, for storing the preferred taxonomy as a replacement of at least one of the reference taxonomy and the application taxonomy (**110, Figure 2**; Specification, page 24, lines 28-33).

**E. CLAIM 2 – DEPENDENT**

The subject matter of claim 2, which depends from claim 1, specifies that the step of storing the preferred taxonomy in response to a selection of the preferred taxonomy includes generating a modified reference taxonomy which aggregates features of the compared reference taxonomy and features of the compared application taxonomy, wherein an identified matching feature of the compared reference and application taxonomies is represented as a single node in the modified reference taxonomy (**300, Figure 7**; Specification, page 20, lines 20-33).

**F. CLAIM 8 - DEPENDENT**

The subject matter of claim 8, which depends from claim 1, recites that the step of generating a reference taxonomy includes receiving user inputs via a graphical user interface, and interpreting user inputs to generate nodes representing data structures of a taxonomy and to generate information representing relationships between data structures (**270, 280, Figure 7**; Specification, page 18, lines 16-25).

**G. CLAIM 9 - DEPENDENT**

The subject matter of claim 9, which depends from claim 1, recites that the step of comparing includes comparing, using string matching, qualified node names for nodes of the reference taxonomy and nodes, corresponding to data structures, of the application taxonomy (**510, Figure 8**; Specification, page 18, line 29-page 19, line 5).



**H. CLAIM 13 – DEPENDENT**

The subject matter of claim 13, which depends from claim 12, specifies that the step of sending at least a part of the reference taxonomy is performed by a distributed publish/subscribe messaging system (Specification, page 35, lines 17-23).

**I. CLAIM 22 – DEPENDENT**

The subject matter of claim 22, which depends from claim 16, further recites an adapter for interfacing between the means for generating a reference taxonomy and a publish/subscribe messaging manager to enable at least a part of the generated reference taxonomy to be sent to a second taxonomy manager via the publish/subscribe messaging manager (Specification, page 35, lines 17-23).

## **GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

The grounds of rejection to review on appeal are as follows:

### **A. GROUND OF REJECTION 1**

The Examiner has finally rejected claims 1-12, 14-21, and 24-26 under 35 U.S.C. § 103(a) as being unpatentable over McClendon et al., U.S. Patent No. 6,625,619, in view of Maze et al., U.S. Patent Application Publication No. 2006/0090066.

### **B. GROUND OF REJECTION 2**

The Examiner has finally rejected claims 13, and 22-23 under 35 U.S.C. § 103(a) as being unpatentable over McClendon et al., U.S. Patent No. 6,625,619, in view of Maze et al., U.S. Patent Application Publication No. 2006/0090066, in further view of Spring et al., U.S. Patent No. 7,181,468.

## **ARGUMENT**

### **A. GROUND OF REJECTION 1 (Claims 1-12, 14-21, and 24-26)**

The Examiner has finally rejected claims 1-12, 14-21, and 24-26 under 35 U.S.C. § 103(a) as being unpatentable over McClendon et al., U.S. Patent No. 6,625,619 (hereinafter “McClendon”) in view of Maze et al., U.S. Patent Application Publication No. 2006/0090066 (hereinafter “Maze”).

#### **A.1. Claims 1-12, 14-21, and 24-26**

In finally rejecting the claims, the Examiner states with respect to independent claims 1, 16, 24 and 26:

McClendon discloses a method for managing data organisation for computer programs, the method including the steps of: accessing storage associated with a computer program to obtain an application taxonomy, the application taxonomy comprising information defining an organisation of stored data items of the program; comparing the reference taxonomy with the application taxonomy to identify matching and non-matching features of the compared taxonomies (col. 2, lines 35-44; col. 4, lines 3-16; col. 6, lines 50-57); and in response to a selection of a preferred taxonomy based on a result of the comparison, storing the preferred taxonomy as a replacement of at least one of the reference taxonomy and the application taxonomy (col. 3, line 7; col. 3, lines 55 to col. 4, lines 16), except generating and storing a reference taxonomy, the reference taxonomy comprising information defining a user preference for data organisation. Maze teaches in figure 8, a user creates a taxonomy to the user's liking at step 800. The user taxonomy is stored in user taxonomy table 12a. The taxonomy is free-form (paragraph [0068]-[0070]). It would have been obvious at the time of the invention was made for one person of the ordinary skill in the art to modify the disclosure of Maze to organized and presented as a linked list presenting a tree structure as will be familiar to those who use Microsoft WINDOWS.RTM. software such as the file manager interface.

Final Office Action dated June 2, 2008, pages 2-3.

Claim 1 on appeal herein is as follows:

1. A method for managing data organisation for computer programs, the method including the steps of:
  - generating and storing a reference taxonomy, the reference taxonomy comprising information defining a user preference for data organisation;
  - accessing storage associated with a computer program to obtain an application

taxonomy, the application taxonomy comprising information defining an organisation of stored data items of the program;  
comparing the reference taxonomy with the application taxonomy to identify matching and non-matching features of the compared taxonomies; and  
in response to a selection of a preferred taxonomy based on a result of the comparison, storing the preferred taxonomy as a replacement of at least one of the reference taxonomy and the application taxonomy.

The Examiner bears the burden of establishing a *prima facie* case of obviousness based on prior art when rejecting claims under 35 U.S.C. § 103. *In re Fritch*, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992). The prior art reference (or references when combined) must teach or suggest all the claim limitations. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). In determining obviousness, the scope and content of the prior art are... determined; differences between the prior art and the claims at issue are... ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or non-obviousness of the subject matter is determined. *Graham v. John Deere Co.*, 383 U.S. 1 (1966). “Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *KSR Int’l. Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. Apr. 30, 2007). “*Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.* *Id.* (citing *In re Kahn*, 441 F.3d 977, 988 (CA Fed. 2006)).” In the present case, the Examiner has not established a *prima facie* case of obviousness in rejecting the claims because neither McClendon nor Maze nor McClendon in view of Maze teaches or suggests all the claim limitations.

The present invention is generally directed to a mechanism for managing the organization of data in a data processing system. More particularly, the present invention recognizes that a user’s computer system typically stores different types of data which may be organized in different ways. Although there may be similarities in the ways in which different data types are stored in a computer system, they are seldom identical, and this makes it difficult for a user to organize the different data types.

Embodiments of the present invention are directed to mechanisms to help a user identify and understand the logical relationship between data structures stored in a computer system. According to an embodiment of the invention, this is accomplished by generating a reference taxonomy that comprises information that defines a user preference for data organization. In exemplary embodiments, a reference taxonomy is selected to represent a user's preference for organizing data within the user's computer system. The reference taxonomy might, for example, be created by the user from scratch, selected by the user from a plurality of application taxonomies that already exist, or it might be created by a taxonomy manager of the computer system. An application taxonomy that includes information defining the organisation of stored data items of a particular program is then accessed. The reference taxonomy is compared with the application taxonomy to identify matching and non-matching features, and a preferred taxonomy is selected and stored based on a result of the comparison, as a replacement of at least one of the reference taxonomy and the application taxonomy. The preferred taxonomy, in effect, represents the user's preference for organizing data within the user's computer system.

McClendon describes a taxonomy for construction product information. McClendon recognizes that different people use different terminology to describe the same products making it difficult to store information in a standardized format. McClendon teaches providing a taxonomy specifically designed for computer use rather than human use. When data is received, a link manager compares the received data with stored data. When mismatching item information is identified, it may be displayed to a user who may provide additional data to assist in resolving the mismatch. The user input may be used to update the stored data taxonomy (see col. 3, line 55-col. 4, line 16 of McClendon).

The Examiner recognizes, and Appellants agree, that McClendon does not disclose or suggest “generating and storing a reference taxonomy, the reference taxonomy comprising information defining a user preference for data organisation” as recited in claim 1. At best, McClendon only teaches receiving user input with respect to resolving mismatches between stored and received data noted by the system. Therefore, McClendon also cannot teach or suggest “comparing the reference taxonomy with the application taxonomy to identify matching and non-matching features of the compared taxonomies” as additionally recited in claim 1.

The Examiner refers to col. 2, lines 35-44; col. 4, lines 3-16 and col. 6, lines 50-57 of McClendon as disclosing “comparing the reference taxonomy with the application taxonomy to identify matching and non-matching features of the compared taxonomies.” These portions of McClendon are reproduced below for the convenience of the Board:

The present invention provides systems and methods for identifying and organizing construction product information in such a way that product data sets can be readily defined and recorded, quickly searched and compared, and accurately transmitted among software applications and translated into the form needed without the need for human intervention or interpretation. These systems and methods involve a taxonomy specifically designed for computer rather than human use, with software applications providing a human-readable interface and output documents.

McClendon, col. 2, lines 35-44.

In preferred embodiments, the link manager compares the item information organized according to the taxonomy from the disparate application to identify matching and mismatching item information. The matching and mismatching item information is then displayed to the end user. In one embodiment, the presentation is via the hierarchical display discussed above. The end user may be afforded an opportunity to resolve mismatching information and provide additional data regarding matching or mismatching items after the information is displayed; in such embodiments, the resolving or additional data may be used to update various data stores associated with the project including a centralized project data store and/or various application specific data stores.

McClendon, col. 4, lines 3-16.

In an exemplary embodiment of the present invention, the basic transmission format of the information is XML because it is a machine-readable standard. XML formatted product information identified and organized in accordance with the taxonomy may be transmitted by many different means, including as email attachments, embedded in HTML web pages, in formats native to the communicating applications, as well as in basic XML.

McClendon, col. 6, lines 50-57.

McClendon, in the above portions discloses that item information organized according to a taxonomy from disparate applications can be compared to identify matching and mismatching item information. An “item” is defined in paragraph 5, lines 3-4 of

McClendon as being [a]ny of the parts or components going into an assembly project.” Comparing item information organized according to a taxonomy is not the same as comparing a reference taxonomy with an application taxonomy, and McClendon does not, either in the above-reproduced portions, or elsewhere in the patent, disclose or in any way suggest “comparing the reference taxonomy with the application taxonomy to identify matching and non-matching features of the compared taxonomies” as recited in claim 1.

McClendon also does not disclose or suggest “in response to a selection of a preferred taxonomy based on a result of the comparison, storing the preferred taxonomy as a replacement of at least one of the reference taxonomy and the application taxonomy” as recited in claim 1. The Examiner asserts otherwise citing to col. 3, line 55 to col. 4, line 16 of McClendon, reproduced below for the convenience of the Board:

In another embodiment, disparate assembly project related applications can be used to select and specify items related to a given assembly project. Typically, each such application will maintain a distinct data store of project related data in an application specific format. A centralized link manager according to the present invention can support centralized organization of item information related to the project. Typically, such a link manager may read item information created by the disparate applications either directly from such applications or indirectly from an application specific data store associated with each such application. The link manager organizes such received or retrieved item information according to the taxonomy. The link manager may in certain embodiments create a project data store for storing the item information in a centralized, taxonomy compliant manner. In preferred embodiments, the link manager compares the item information organized according to the taxonomy from the disparate application to identify matching and mismatching item information. The matching and mismatching item information is then displayed to the end user. In one embodiment, the presentation is via the hierarchical display discussed above. The end user may be afforded an opportunity to resolve mismatching information and provide additional data regarding matching or mismatching items after the information is displayed; in such embodiments, the resolving or additional data may be used to update various data stores associated with the project including a centralized project data store and/or various application specific data stores.

The above paragraph describes a mechanism by which a link manager compares item information organized according to the taxonomy from disparate applications to identify matching and mismatching item information. The matching and mismatching item information is then displayed to an end user.

As acknowledged by the Examiner, McClendon does not disclose generating and storing a reference taxonomy. McClendon also does not disclose or suggest comparing a reference taxonomy with an application taxonomy, and does not disclose or suggest “in response to selection of a preferred taxonomy based on a result of the comparison, storing the preferred taxonomy as a replacement of at least one of the reference taxonomy and the application taxonomy.” Neither in the above paragraph nor elsewhere in the reference does McClendon teach or suggest storing a preferred taxonomy as a replacement of at least one of a reference taxonomy and an application taxonomy, and McClendon certainly does not teach or suggest doing so as a result of a comparison between a reference taxonomy and an application taxonomy.

Maze does not supply the deficiencies in McClendon. Maze may teach that it is known that a user can create a taxonomy. There is, however, no disclosure or suggestion in either Maze or McClendon to modify McClendon to include “generating and storing a reference taxonomy, the reference taxonomy comprising information defining a user preference for data organization” as recited in claim 1. McClendon, as indicated above, is directed to providing a taxonomy specifically designed for computer use rather than human use, and teaches a user input only to assist in resolving a mismatch between received and stored data. Therefore, assuming *arguendo*, that it is known that a user can create a taxonomy, there would be no reason to modify McClendon to generate and store a reference taxonomy that comprises information defining a user preference for data organization because McClendon is directed to providing a taxonomy specifically designed for computer use rather than human use and permits user interaction only when there is a mismatch. Therefore, modifying McClendon to generate and store a reference taxonomy that comprises information defining a user preference for data organization would appear to contradict an expressed objective of McClendon.

Therefore, neither McClendon nor Maze nor their combination discloses or suggests “generating and storing a reference taxonomy, the reference taxonomy comprising information defining a user preference for data organization”, “comparing the reference taxonomy with the application taxonomy to identify matching and non-matching features of the compared taxonomies”, or “in response to a selection of a preferred taxonomy based on a result of the comparison, storing the preferred taxonomy as a replacement of at least one of the reference



taxonomy and the application taxonomy” as recited in claim 1, and the Examiner has failed to establish a *prima facie* case of obviousness in rejecting claim 1. Claim 1, accordingly, patentably distinguishes over the cited art in its present form.

Claims 16, 24 and 26 recite similar subject matter as claim 1 and also patentably distinguish over McClendon in view of Maze for similar reasons as discussed above with respect to claim 1.

Claims 2-12, 14, 15, 17-21 and 25 depend from and further restrict one of independent claims 1, 16 and 24, and also patentably distinguish over McClendon in view of Maze, at least by virtue of their dependency.

## **A.2. Claim 2**

Claim 2 depends from claim 1 and specifies that the step of storing the preferred taxonomy in response to selection of the preferred taxonomy includes “generating a modified reference taxonomy which aggregates features of the compared reference taxonomy and features of the compared application taxonomy, wherein an identified matching feature of the compared reference and application taxonomies is represented as a single node in the modified reference taxonomy.

The Examiner refers to col. 2, lines 35-44 and col. 4, lines 3-16 of McClendon, reproduced above, as disclosing aggregating features of compared reference and application taxonomies to generate a modified reference taxonomy. Appellants respectfully disagree.

McClendon does not disclose a reference taxonomy as acknowledged by the Examiner, and also does not disclose comparing taxonomies. Therefore, McClendon also cannot disclose or suggest aggregating features of compared reference and application taxonomies to generate a modified reference taxonomy.

Claim 2, accordingly, patentably distinguishes over McClendon in view of Maze in its own right as well as by virtue of its dependency.

## **A.3. Claim 8**

Claim 8 depends from and further restricts claim 1, and is as follows:

8. A method according to claim 1, wherein the step of generating a reference taxonomy includes:

receiving user inputs via a graphical user interface; and interpreting user inputs to generate nodes representing data structures of a taxonomy and to generate information representing relationships between data structures.

In rejecting claim 8, the Examiner states:

McClendon discloses in figure 1, wherein the step of generating a reference taxonomy includes receiving user inputs via a graphical user interface; and interpreting user inputs to generate nodes representing data structures of a taxonomy and to generate information representing relationships between data structures (col. 3, lines 8-25; col. 4, lines 3-16; col. 19, lines 54 to col. 20, line 8, claim 30)

Final Office Action dated June 2, 2008, page 4.

Appellants respectfully disagree. McClendon, in the portions referred to by the Examiner, may teach displaying items organized according to a taxonomy, and that an end user may input additional data to resolve mismatching information. McClendon does not, however, either in the portions referred to by the Examiner or elsewhere in the patent, teach or suggest receiving and interpreting user inputs to generate a reference taxonomy.

Claim 8, accordingly, patentably distinguishes over McClendon in view of Maze in its own right as well as by virtue of its dependency.

#### **A.4. Claim 9**

Claim 9 depends from and further restricts claim 1, and is as follows;

9. A method according to claim 1, wherein the step of comparing includes comparing, using string matching, qualified node names for nodes of the reference taxonomy and nodes, corresponding to data structures, of the application taxonomy.

In rejecting claim 9, the Examiner states:

McClendon discloses wherein the step of comparing includes comparing, using string matching, qualified node names for nodes of the reference taxonomy and nodes, corresponding to data structures, of the application taxonomy (col. 3, lines 16-25; col. 4, lines 3-16; claim 28).

Final Office Action dated June 2, 2008, pages 4-5.

Col. 4, lines 3-16 is reproduced above and does not describe comparing qualified node names for nodes using string matching. Col. 3, lines 16-25 and claim 28 of McClendon also do not describe using string matching. Claim 9, accordingly, is not taught by McClendon and patentably distinguishes over McClendon in view of Maze in its own right as well as by virtue of its dependency.

For at least all the above reasons, claims 1-12, 14-21, and 24-26 are not obvious over McClendon in view of Maze and it is respectfully requested that the Board reverse the Examiner's Final Rejection of those claims.

**B. GROUND OF REJECTION 2 (Claims 13 and 22-23)**

The Examiner has finally rejected claims 13 and 22-23 under 35 U.S.C. § 103 as being unpatentable over McClendon in view of Maze and further in view of Spring et al., U.S. Patent No. 7,181,468 (hereinafter "Spring"). This rejection is respectfully traversed.

In rejecting the claims, the Examiner states:

(Claims 13, 22)

McClendon and Maze discloses substantially all of the elements, except the step of sending at least part of the reference taxonomy is performed by a distributed publish/subscribe messaging system. Spring teaches a producer on a publishing team to manage Taxonomies and editorial content of various types for CORE-based websites (col. 7, line 55 to col. 8, line 12; col. 12, line 51 to col. 13, line 2; col. 17, lines 29-36;). It would have been obvious to one having ordinary skill in the art at the time the invention was made to send at least part of taxonomy by distribute publish/subscribe, because from the user's point of view, the media items are presented for selection and manipulation by the user so as to appear to be stored in a hierarchical file system, while the actual organization of media items and data is hidden from the user.

(Claim 23)

McClendon and Maze discloses substantially all of the elements, except including a listener component for identifying receipt of reference taxonomy information and triggering the taxonomy manager to process such received taxonomy information (col. 3, lines 30-35).

Final Office Action dated June 2, 2008, pp. 5-6.

Claims 13 depends from and further restricts independent claim 1 and dependent claim 12, and claims 22 and 23 depend from and further restrict independent claim 16. Spring is cited as disclosing a producer on a publishing team to manage taxonomies and editorial content of various types for CORE-based websites. Spring does not supply the deficiencies in McClendon and Maze as described in detail above with respect to the independent claims. Claims 13 and 22-23, accordingly, patentably distinguish over McClendon in view of Maze and Spring, at least by virtue of their dependency.

In addition, Appellants respectfully disagree that Spring discloses a publish/subscribe messaging system as recited in claim 13 and 22. Spring may disclose a media publishing system but does not appear to anywhere discuss a publish/subscribe system.

Claims 13 and 22, accordingly, patentably distinguish over the cited art in their own right as well as by virtue of their dependency.

Claim 23 depends from claim 22 and patentably distinguishes over the cited art by virtue of its dependency from both claims 16 and 22.

Therefore, for at least the above reasons, Appellants respectfully request that the Board reverse the Examiner's Final Rejection of claims 13 and 22-23.

Date: October 27, 2008

Respectfully submitted,

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## **CLAIMS APPENDIX**

The text of the claims involved in the appeal is as follows:

1. A method for managing data organisation for computer programs, the method including the steps of:

generating and storing a reference taxonomy, the reference taxonomy comprising information defining a user preference for data organisation;

accessing storage associated with a computer program to obtain an application taxonomy, the application taxonomy comprising information defining an organisation of stored data items of the program;

comparing the reference taxonomy with the application taxonomy to identify matching and non-matching features of the compared taxonomies; and

in response to a selection of a preferred taxonomy based on a result of the comparison, storing the preferred taxonomy as a replacement of at least one of the reference taxonomy and the application taxonomy.

2. A method according to claim 1, wherein the step of storing the preferred taxonomy in response to a selection of the preferred taxonomy includes:

generating a modified reference taxonomy which aggregates features of the compared reference taxonomy and features of the compared application taxonomy, wherein an identified matching feature of the compared reference and application taxonomies is represented as a single node in the modified reference taxonomy.

3. A method according to claim 1, wherein the step of storing the preferred taxonomy in response to a selection of the preferred taxonomy includes:

generating a modified application taxonomy which includes features of the compared reference taxonomy.

4. A method according to claim 3, wherein the generated reference taxonomy includes nodes representing data structures and information representing relationships between data structures, and wherein the step of generating a modified application taxonomy includes generating at least one new data structure within the modified application taxonomy which new data structure corresponds to a node of the compared reference taxonomy.

5. A method according to claim 3, wherein the generated reference taxonomy includes nodes representing data structures and information representing relationships between data structures, and wherein the step of generating a modified application taxonomy includes repositioning data structures within the compared application taxonomy, such that the relationships between the data structures of the modified application taxonomy and nodes of the reference taxonomy are more consistent than the relationships between data structures of the compared application taxonomy and nodes of the reference taxonomy.

6. A method according to claim 1, wherein the step of generating a reference taxonomy includes:

accessing storage associated with a second computer program to obtain an application taxonomy for the second program.

7. A method according to claim 1, wherein a step of accessing storage to obtain an application taxonomy includes using an adapter which interfaces to the respective computer program to access information relating to names of and relationships between stored data structures.
8. A method according to claim 1, wherein the step of generating a reference taxonomy includes:
- receiving user inputs via a graphical user interface; and
  - interpreting user inputs to generate nodes representing data structures of a taxonomy and to generate information representing relationships between data structures.
9. A method according to claim 1, wherein the step of comparing includes comparing, using string matching, qualified node names for nodes of the reference taxonomy and nodes, corresponding to data structures, of the application taxonomy.
10. A method according to claim 1, wherein the step of comparing the reference taxonomy with the application taxonomy is repeated in response to a trigger condition.
11. A method according to claim 10 wherein the trigger condition is expiry of a predefined time period.
12. A method according to claim 1, wherein said step of generating a reference taxonomy is performed on a first data processing apparatus and is followed by a step of sending at least a part of

the reference taxonomy to a second data processing apparatus, and wherein the steps of comparing and storing a selected preferred taxonomy are performed on the second data processing apparatus.

13. A method according to claim 12, wherein the step of sending at least a part of the reference taxonomy is performed by a distributed publish/subscribe messaging system.

14. A method according to claim 1, including the steps of:  
generating, via a graphical user interface (GUI), a graphical representation of the reference taxonomy including nodes representing data structures of the taxonomy; and  
in response to user-interactions with the GUI, generating calls to the computer program to initiate application program functions.

15. A method according to claim 14, wherein the GUI includes a data backup function call and the method includes the step of:

in response to user-selection of the data backup function call and user-selection of a set of one or more nodes of the reference taxonomy, sending a call to the application program to backup data within the application taxonomy data structures corresponding to said set of nodes.

16. A taxonomy manager for managing data organisation for computer programs, comprising:  
means for generating and storing a reference taxonomy, the reference taxonomy comprising information defining a user preference for data organisation;



at least one adapter program for accessing storage associated with a respective computer program to obtain an application taxonomy, the application taxonomy comprising information defining an organisation of stored data items of the program;

means for comparing the reference taxonomy with the application taxonomy to identify matching and non-matching features of the compared taxonomies; and

means, responsive to a selection of a preferred s taxonomy based on a result of the comparison, for storing the preferred taxonomy as a replacement of at least one of the reference taxonomy and the application taxonomy.

17. A taxonomy manager according to claim 16, including a plurality of adapters, wherein each adapter enables accessing of storage associated with a computer program of a respective type and obtaining the application taxonomy for the computer program of the respective type.

18. A taxonomy manager according to claim 16, including a graphical user interface (GUI) for generating a graphical representation of the reference taxonomy, the graphical representation including nodes representing data structures.

19. A taxonomy manager according to claim 18, wherein the GUI is responsive to user inputs to identify selection of the preferred taxonomy.

20. A taxonomy manager according to claim 18, wherein the GUI includes function calls for initiating operations of said respective computer program.

21. A taxonomy manager according to claim 20, wherein the GUI includes a data backup function call and is responsive to user-selection of the data backup function call and user selection of a set of one or more nodes of the reference taxonomy to send a call to the respective computer program to backup data within the application taxonomy data structures corresponding to said set of nodes.

22. A taxonomy manager according to claim 16, including an adapter for interfacing between the means for generating a reference taxonomy and a publish/subscribe messaging manager to enable at least a part of the generated reference taxonomy to be sent to a second taxonomy manager via the publish/subscribe messaging manager.

23. A taxonomy manager according to claim 22, including a listener component for identifying receipt of reference taxonomy information and triggering the taxonomy manager to process such received taxonomy information.

24. A computer program for managing data organisation, comprising:  
program code for generating and storing a reference taxonomy, the reference taxonomy comprising information defining a user preference for data organisation;  
program code for accessing storage associated with a first computer program to obtain an application taxonomy, the application taxonomy comprising information defining an organisation of stored data items of the first program; program code for comparing the reference taxonomy with the application taxonomy to identify matching and non-matching features of the compared taxonomies; and

program code, responsive to a selection of a preferred taxonomy based on a result of the comparison, for storing the preferred taxonomy as a replacement of at least one of the reference taxonomy and the application taxonomy.

25. A computer program according to claim 24, including a graphical user interface for displaying taxonomies to a user and for responding to user inputs to identify selection of the preferred taxonomy.

26. A data processing apparatus including: a data processor; data storage; one or more computer programs for controlling the operation of the data processor to perform operations on data items stored in the data storage; and a taxonomy manager for managing organisation of stored data in association with the one or more computer programs, the taxonomy manager including:

means for generating and storing a reference taxonomy, the reference taxonomy comprising information defining a user preference for data organisation;

an adapter for accessing storage associated with a computer program to obtain an application taxonomy, the application taxonomy comprising information defining an organisation of stored data items of the program;

means for comparing the reference taxonomy with the application taxonomy to identify matching and non-matching features of the compared taxonomies; and

means, responsive to a selection of a preferred taxonomy based on a result of the comparison, for storing the preferred taxonomy as a replacement of at least one of the reference taxonomy and the application taxonomy.

## **EVIDENCE APPENDIX**

This appeal brief presents no additional evidence.

## **RELATED PROCEEDINGS APPENDIX**

This appeal has no related proceedings.